Reviews in Clinical Gerontology 1996 6; 349–363

Neurotic disorders

James Lindesay and Tony Winston
University of Leicester, Leicester, UK

Introduction

This paper updates a previous review of the topic published in this series in 1992.[1] There are no major advances in knowledge, understanding or treatment to report, but there has been a steady growth in interest, articles, chapters and textbooks dealing with neurotic disorders in the elderly, which is an encouraging sign that these common, disabling and treatable conditions are now being taken more seriously by health professionals.

The concept of neurosis

Debate and discussion continue about the relative validity of categorical and dimensional concepts of neurosis. The unitary, dimensional concept of neurosis invented and developed in the eighteenth and nineteenth centuries has yielded in the second half of the twentieth century to a system of specific diagnostic categories based upon patterns of symptoms. This system is currently enshrined in the tenth edition of the *International classification of diseases* (ICD-10)[2] and the fourth edition of the *Diagnostic and statistical manual of mental disorders* (DSM-IV).[3] ICD-10 still makes reference to a group of 'neurotic, stress-related and somatoform disorders', but in DSM-IV all mention of neurosis has been removed. Despite this powerful movement away from the dimensional concept of neurosis in the modern nosologies, the categorical alternative they provide is unsatisfactory in several respects. There is considerable comorbidity between the specific neurotic diagnoses, and between them and other disorders such as depression. These categories are also unstable over time, and the effectiveness of treatments appears to be relatively independent of diagnosis.[4,5] The dimensionality of neurotic disorders is particularly apparent in community and primary care populations, where independent but related dimensions of depression and anxiety underlie the manifest psychological symptomatology in both younger and older adults.[6,7] An individual's symptoms during any particular episode are determined by pre-existing vulnerability, the particular destabilization factors precipitating that episode, and the steps taken by the patient or the doctor to manage it (restitution factors). Most of the current diagnostic categories such as phobic disorder, dissociative disorder or somatoform disorder may be seen as the results of various maladaptive attempts by patients to reduce their symptoms.[8] The dimensional approach to neurotic disorders formulates them as longitudinal processes rather than just as cross-sectional episodes; this perspective is particularly important in elderly patients who often present with many years of illness experience.[9] It also integrates the depressive component of many neurotic disorders, something that categorical classifications have never done adequately.

Epidemiology

One important consequence of the modern classificatory approach to neurotic disorders is that specific diagnostic criteria and standardized methods of assessment have made it possible to collect reliable and comparable information about the distribution of neurotic symptoms and disorders in populations, and the various factors affecting this distribution. However, while modern epidemiological methods allow for reliability and comparability, the validity of the various case definitions used remains questionable. Different rules with regard to symptom definition, severity and diagnostic hierarchies result in very different definitions of 'caseness', particularly with neurotic disorders where there is a very wide spectrum of severity.[10]

Address for correspondence: Professor James Lindesay, Division of Psychiatry for the Elderly, University of Leicester, Leicester General Hospital, Leicester LE5 4PW, UK.

To a great extent, the prevalence rates of neurotic disorders found in the elderly depend upon the population investigated. They are uncommon primary diagnoses in hospital inpatient, outpatient and casualty populations,[11–13] and while there is a steady accumulation of chronic cases in primary care settings, there is a decline in the rate of new consultations with age.[14,15] As with younger adults, the highest rates of neurotic disorders in the elderly, particularly anxiety, are found in the community population. To some extent this is because a proportion of the community cases identified by epidemiological surveys are relatively mild, transient or unproblematic, but it is also true that there are clinically significant cases that either do not present to health services or are not identified or treated as such if they do.[16–19]

Table 1 summarizes the findings of the United States Epidemiologic Catchment Area (ECA) study so far as DSM-III categories related to neurotic disorder in the elderly are concerned.[20–22] Overall, lifetime prevalence rates decreased with age, although this decline was least pronounced in phobic disorder and somatization disorder; phobic disorder was the commonest psychiatric disorder identified in women over 65 years, and the second commonest after cognitive impairment in men. Women had higher period prevalence rates than men for phobic disorder, panic disorder, generalized anxiety disorder and somatization disorder, and higher lifetime prevalence rates of obsessive-compulsive disorder and somatization disorder. Most elderly subjects with neurotic disorders had developed them before their fifties, but elderly cases of phobic disorder, panic disorder and obsessive–compulsive disorder tended to be of later onset. Incidence rates of most neurotic disorders fell with age in both sexes, but this was least apparent for phobic disorder and obsessive–compulsive disorder. One interesting finding of this study was that elderly subjects had lower lifetime prevalence rates of depression and neurotic disorders than did younger groups; it is unclear whether this is a genuine cohort phenomenon,[23] or merely the result of a survivor effect or non-recall of past illness episodes by the elderly.

Not surprisingly, given the more stringent case definitions employed, the prevalence rates of neurotic disorders in epidemiological studies using the GMS/AGECAT system, a structured interview

Table 1. *Prevalence and incidence rates of specific DSM-III mental disorders (ECA study)*

		Males	Females	Total
One-month prevalence (%)[22,57]				
Dysthymia	65+	1.0	2.3	1.8
	All ages	2.2	4.2	3.3
Phobic disorder	65+	2.9	6.1	4.8
	All ages	3.8	8.4	6.2
Panic disorder	65+	0.0	0.2	0.1
	All ages	0.3	0.7	0.5
Obsessive–compulsive disorder	65+	0.7	0.9	0.8
	All ages	1.1	1.5	1.3
Somatization disorder	65+	0.0	0.2	0.1
	All ages	0.0	0.2	0.1
Generalized anxiety disorder	65+	–	–	1.9[a]
	45–64	–	–	3.1[a]
Annual incidence per 100 person-years of risk[21]				
Phobic disorder	65+	2.66	5.52	4.29
	All ages	2.33	5.38	3.98
Panic disorder	65+	0.00	0.07	0.04
	All ages	0.30	0.76	0.56
Obsessive–compulsive disorder	65+	0.12	1.00	0.64
	All ages	0.39	0.92	0.69

[a] Six-month prevalence.

with a computerized diagnostic algorithm,[24,25] were much lower than those found by the ECA study (Table 2). However, a significant proportion had subcase levels of anxiety, phobic and obsessional neurosis. Age and sex differences for the case and subcase AGECAT categories were less consistent than those found by the ECA study using DSM-III criteria. A three-year follow-up of the Liverpool sample found an incidence rate for neurotic disorders of 4.4/1000 per year.[26] In their view, the findings supported the idea of a general neurotic syndrome, with the majority of affected subjects having a prolonged course and variation in the predominance of different symptoms over time.

Another study of neurotic disorders in elderly community populations is the Guy's/Age Concern survey, which investigated anxiety disorders using instruments specifically developed for the study and validated against clinical diagnosis.[27] The survey employed nonhierarchical, nonjudgemental diagnostic criteria closely approximating in the case of phobic disorders to nonhierarchical DSM-III criteria.[10] The overall one-month prevalence was 10% for phobic disorders, and 3.7% for generalized anxiety; rates were higher in women than in men, although this was only statistically significant for phobic disorders. No subject met DSM-III criteria for panic disorder. Phobic disorders in this sample were examined further in a case–control study[19]; cases had more neurotic symptoms than controls and higher rates of previous psychiatric disorders. One-third of the cases had their onset after the age of 65 years. Phobic subjects reported higher rates of contact with their general practitioners, but only a minority were receiving any form of treatment for their anxiety. In every case this took the form of psychotropic medication; no one had been offered any form of psychological management.

Table 2. *One-month prevalence rates (%) of GMS/AGECAT neurotic disorders*[24,25]

	Male		Female	
	Case	Subcase	Case	Subcase
London/New York				
Anxiety neurosis	0.3	17.9	1.2	15.7
Phobic neurosis	0.0	0.6	0.0	2.1
Obsessional neurosis	0.0	5.4	0.4	4.2
Hypochondriacal neurosis	1.3	0.0	0.2	0.2
Liverpool				
Anxiety neurosis	0.2	18.5	1.7	16.9
Phobic neurosis	0.0	3.7	1.2	5.6
Obsessional neurosis	0.0	2.4	0.2	1.4
Hypochondriacal neurosis	0.5	0.2	0.5	0.2

Little is known about the longer-term course and outcome of neurotic disorders in the elderly. In their review of studies of general adult populations, Marks and Lader[28] concluded that 41–59% of cases of 'anxiety neurosis' (generalized anxiety and panic) were recovered or much improved at 1- to 20-year follow-up. Noyes and Clancy[29] found that 33% of their patient sample was unchanged or worse at five-year follow-up, and that later age of onset of anxiety was a predictor of poor outcome, particularly in men. In the three-year follow-up study by Larkin *et al.*,[26] only 20% of the reinterviewed elderly cases had improved. In a 35-year follow-up of former panic patients Coryell[30] found that they had an excess mortality. In particular, male patients had a higher rate of deaths from cardiovascular disease. Follow-up studies of general adult phobic populations have shown that about half of the subjects show at least some improvement.[31,32]

Factors associated with neurotic disorders

Biological

The biological aspects of neurotic disorders in the elderly have not yet received much attention from researchers. The evidence and its limitations have recently been reviewed by Philpot.[33] Studies of young adults show that there is a significant genetic component to vulnerability to neurotic disorders as a group,[34,35] but it is not disorder-specific, except perhaps in obsessive–compulsive disorder (OCD) and panic disorder.[36,37] Vulnerability factors such as fearfulness, neuroticism and intelligence are also under a degree of genetic control.[38–41] The contribution of genetic factors to affective disorders diminishes with age, but it is not known if this is also true of neurotic disorders.

Neuroimaging studies of brain structure and function have yet to contribute significantly to our understanding of neurotic disorders in the elderly. Computerized tomography (CT) scan studies of elderly depressed patients have found that milder cases and those with higher anxiety scores are

more likely to have normal scans.[42,43] Studies of poststroke anxiety disorders show that the distribution of lesions differs from that in patients with poststroke affective disorders, but they are not consistent as to location; for example, Sharpe *et al.*[44] found anxiety to be related to the size of left hemisphere lesions, whereas Castillo *et al.*[45] found it to be associated with right hemisphere lesions. Functional neuroimaging studies carried out with younger subjects have found changes in regional cerebral blood flow (rCBF) associated with exposure to the feared stimulus in phobic patients and with induction of obsessional thoughts in patients with OCD.[46–50] Abnormalities of caudate nucleus metabolism in OCD have also been found using positron emission tomography (PET).[51]

While epidemiological studies suggest that there is no association between neurotic disorders and dementia, in the early stages dementia may reveal itself through symptoms such as anxiety or obsessionality.[52,53] Anxiety in demented patients may be associated with depression or psychotic symptoms, or with the implications of the dementia and its impact on social functioning. Studies have yet to examine the possibility that the neurodegenerative process in Alzheimer's disease is itself a cause of anxiety.

Psychosocial

At all ages, there is a clear relationship between psychological ill health and indicators of social adversity such as low occupational class, unemployment, poor housing, overcrowding and limited access to amenities such as transport. In the elderly, the evidence for this association is strongest in studies that use dimensional scales for measuring anxiety and depression.[54,55] The relationship between adversity and categorical definitions of cases is less clear; in the ECA study generalized anxiety was the only neurotic disorder associated with a socioeconomic variable (low household income). Phobic disorders in the elderly are associated with urban domicile,[56,57] but this may not be an indicator of adversity so much as poor social networks. Adversity increases levels of distress, but is less important as an aetiological factor in the development of more severe disorders.

Adverse life events are provoking agents which determine the onset of some psychiatric disorders in vulnerable individuals.[58–60] It is the individual meaning of the event, rather than its severity, that appears to be important,[61] with loss events leading to depression, and threatening events to anxiety.[62] Some classes of life-event, such as bereavement, retirement and institutionalization, are commoner in old age than at other times of life, but their impact in relation to the onset of neurotic disorders in the elderly is still underresearched. Bereavement appears to take the same form and follow the same course in old age as it does earlier in life, with only a minority developing a psychiatric disorder.[63] It is not known if psychiatric morbidity following bereavement is more or less common in the elderly compared with other age groups. It has been suggested that the 'timeliness' of some losses in old age may reduce their impact[64,65]; in one recent study, the only significant predictor of persistent grief in old age was the unexpectedness of the death.[66]

Experiences such as early parental loss and physical and sexual abuse in childhood are significant vulnerability factors for depression and other psychiatric disorders in adult life, although their significance in neurotic disorders in old age has not been extensively studied. There is an association between phobic disorders, particularly agoraphobia, and early parental loss in both the young and the elderly.[19,67,68] Generalized anxiety has also been linked with early parental loss in men.[69] It appears that it is not so much parental loss that is important, so much as associated experiences such as prior marital conflict or subsequent inadequate care.[70] Presumably these experiences affect the developing personality and result in particular cognitive habits and 'defence styles'[71] that determine the responses to adverse events and experiences in later life. The relationship between abuse in childhood and psychiatric disorder in old age is not known; one small study has suggested a link between childhood sexual abuse and panic disorder in the elderly.[72]

Physical illness

In elderly community populations, neurotic disorders are associated with increased mortality and physical morbidity.[73,74] This association is even more marked in psychiatric and medical patients,[75,76] which emphasizes the importance of careful history-taking and physical examination, particularly in late-onset cases.

There are several reasons why neurotic and physical disorders are linked in old age.[77,78] Physical illness may be a cause of the neurotic disorder, either directly by presenting with neurotic symptoms (Table 3), or indirectly as an adverse life-event leading to psychological symptoms or the onset of an anxiety or depressive disorder. For example, mild, chronic anxiety symptoms are relatively common following myocardial infarction in old age,[79] and in a few cases this can develop into a severe and disabling 'cardiac neurosis', often focused on somatic anxiety symptoms such as palpitations. Such anxiety about physical illness can have important behavioural consequences (see below).

The somatic symptoms of neurotic disorders may be mistaken for physical illness. It is a common clinical impression that the somatization of psychological distress is commoner in elderly patients,[80,81] but to some extent this may be due to a selection bias, since it is the individuals who complain of physical symptoms of anxiety and depression who will be most likely present to medical services. Neurotic disorders may also

Table 3. *Physical causes of neurotic symptoms in the elderly*[78]

Cardiovascular	*Neurological*
Myocardial infarction	Head injury
Cardiac arrhythmias	Cerebral tumour
Orthostatic hypotension	Dementia
Mitral valve prolapse	Delirium
	Epilepsy
	Migraine
	Cerebral lupus erythematosus
	Demyelinating disease
	Vestibular disturbance
	Subarachnoid haemorrhage
	CNS infections
Respiratory	*Dietary and drug-related*
Pneumonia	Caffeine
Pulmonary embolism	Vitamin deficiencies
Emphysema	Anaemia
Asthma	Sympathomimetics
Left-ventricular failure	Dopamine agonists
Hypoxia	Corticosteroids
Chronic obstructive airways disease	Withdrawal syndromes
Bronchial carcinoma	Akathisia
	Digoxin toxicity
	Activating serotonin reuptake inhibitors (e.g. fluoxetine)
Endocrine and metabolic	
Hypo- and hyperthyroidism	
Hypo- and hypercalcaemia	
Cushing's disease	
Carcinoid syndrome	
Hypoglycaemia	
Insulinoma	
Phaeochromocytoma	
Hyperkalaemia	
Hypokalaemia	
Hypothermia	

cause physical illness by direct or indirect effects on bodily function. Most important in this respect are the higher rates of damaging behaviours such as smoking and alcohol abuse. Physiological effects, such as anxiety-related hyperventilation causing coronary artery spasm, may also be significant.[82]

Specific neurotic disorders

Generalized anxiety

In generalized anxiety there is persistent anxious mood accompanied by motor tension, autonomic symptoms, apprehensiveness and hypervigilance. In recent years, generalized anxiety has suffered as a diagnostic entity at the expense of the other 'specific' anxiety disorders such as phobia and panic; it has been a particular victim of the categorical approach to neurosis. Nevertheless, there remains a group of patients who are excessively and unreasonably preoccupied with general concerns without developing the symptoms and behaviours associated with other specific disorders. It has been suggested that this diagnosis may be inappropriately applied to elderly people because of their increased vulnerability and physical frailty[83]; in fact, epidemiological evidence indicates that only a small percentage of the elderly population meet the diagnostic criteria for this disorder. In the ECA Piedmont Health Survey, the six-month prevalence of DSM-III Generalized Anxiety Disorder (GAD) without major depression or panic in elderly subjects was only 1.9%, lower than the rate found in middle-aged subjects (3.1%).[57] The prevalence rates of cases identified by other studies are similarly low.[24–27] These findings suggest that old age is not associated with an inappropriate inflation of diagnoses of GAD using current classification systems; however, it is true that at the subcase level rates are much higher.[24,25] GAD as currently defined is associated with an increased use of both physical and mental health services in the elderly.[57] If service use is regarded as a relevant criterion of clinical importance of a disorder, then the concept of generalized anxiety is still useful in this age group, particularly in primary care settings.

Phobic disorders

Phobias are defined as the persistent and irrational fear of an object, activity or situation resulting in a compelling desire to avoid the phobic stimulus. Phobias are usually subdivided by modern classifications into agoraphobia, social phobia and simple (specific) phobia. The fears reported by elderly people are similar to those in younger age groups – animals, heights, going out of doors, public transport, etc.,[19] although the relative frequency may differ; the commonest fear expressed by the urban elderly in one study was using public transport. Much is made of the 'reasonableness' of some of these fears expressed by elderly people, particularly those who live in rundown inner-city areas, and as a result clinically significant fears may be dismissed as rational. In fact, perceptions of vulnerability are determined principally by factors such as gender, physical disability and the availability of social support,[84–86] and it is these rather than age that should be taken into consideration when judging the reasonableness or otherwise of any fears that are expressed.

Phobic disorders in the elderly fall broadly into two groups. On the one hand there are those with long-standing fears, usually specific in nature, which are associated with little in the way of distress or social impairment. These individuals have arranged their lives so that they need not confront their fears, and it is only occasionally, with the onset of old age, that exposure becomes unavoidable; for example, an agoraphobic may have to contend with the challenge of doing the shopping after the death of their spouse, a needle phobic with the onset of insulin-dependent diabetes, or a lift phobic with the need to use one following admission into residential care. The second important group of phobic disorders in the elderly have their onset late in life, are usually agoraphobic in nature, and are associated with clinically significant levels of distress and disability.[19] These late-onset disorders typically develop following a traumatic event such as an episode of physical illness, a mugging or a fall, and the resulting impairment usually persists long after the physical consequences of the event have resolved. Panic attacks alone are rarely a cause of agoraphobia developing in old age, although they may occur as a consequence of it.

Both falls and the fear of falling are relatively common in old age, and are associated with increased levels of anxiety and depression.[87–89] To some extent this association is mediated by factors such as physical disability and the prescription of psychotropic drugs. Vetter and Ford[87]

warn against the vicious circle of frailty, fear of falling and sedative medication, leading to further unsteadiness and falls. In some cases, fear of falling in the elderly may be associated with neurological disorder. Marks[90] has described the condition of 'space phobia', an intense fear of falling in the absence of visual supports; typically, the onset of this fear is relatively late in life, and in some individuals it is associated with disturbances of the vestibulo-ocular and righting reflexes.

Unfortunately, the psychological effects of traumatic physical health-events in old age are still poorly appreciated, with the result that both family and health and social services may unwittingly collude with the phobic avoidance by providing well intentioned but misguided help and domiciliary support. Very few elderly people with disabling phobic disorders receive any appropriate treatment for their problem[27]; indeed, at all ages the inappropriate prescription of benzodiazepine drugs may aggravate the development of phobic symptoms.[91,92]

Panic disorder

Panic disorder is a condition characterized by recurrent attacks of intense fear accompanied by severe somatic anxiety symptoms such as palpitations, dyspnoea and choking. Very little is known about panic in old age. Epidemiological studies indicate that panic attacks and panic disorder are rare in elderly community populations. However, it is an episodic disorder, so its prevalence is likely to be underestimated in cross-sectional surveys.[93] The limited evidence from case reports,[94,95] volunteer samples[96] and nonpsychiatric patient populations[97,98] suggests that panic in old age is less common than in early adulthood, is commoner in women and widows, and that late-onset cases are symptomatically less severe than those whose disorder started earlier in life. Elderly panic patients tend not present to psychiatric services,[12,99] but because of the prominent physical symptoms they may be referred instead for investigation and treatment to cardiologists, neurologists and gastroenterologists. In a study of cardiology patients with chest pain and no evidence of coronary artery disease, one-third of those aged 65 years and over met diagnostic criteria for panic disorder.[98] At all ages, there is extensive comorbidity between panic disorder and somatization disorder,[100] and patients with panic are often misdiagnosed by their GPs as chronic somatizers.[97] In late-onset cases, the possibility of depression or an iatrogenic cause such as dopamine agonist treatment for Parkinson's disease should be considered.[101] In some cases, panic attacks result in secondary agoraphobic avoidance.[94] Panic disorder has been associated with increased risk of both suicidal and nonsuicidal mortality in studies of general adult samples,[30,102] but it is not known to what extent panic is a specific cause of increased mortality in old age.

Post-traumatic stress disorder

Exposure to extreme catastrophe can cause significant psychological disturbance, and because of the close relationship of these stress reactions to acute or ongoing trauma they are now classified as specific diagnoses in DSM-IV and ICD-10, notably post-traumatic stress disorder (PTSD). Little is known about the long-term effect of severely traumatic experiences, although PTSD can persist for many years. Its onset may also be delayed, sometimes manifesting itself for the first time in old age following retirement or an adverse life-event.[103,104] Many people, now elderly, were exposed to severe trauma during the Second World War, and it appears that what we now call PTSD was common then and has been persistent. In one study of American ex-prisoners of war, 67% had suffered from PTSD at the time, and only 27% had fully recovered.[105] Another recent study of 800 World War II prisoners of war found that 80% had persistent nightmares, and that those who had been imprisoned for longer periods and who had been subjected to more severe stress were more likely to meet the diagnostic criteria for PTSD.[106] Traumatic wartime experiences have an enduring effect on a significant minority of older people, particularly more vulnerable groups such as psychiatric patients or those in long-term care,[107, 108] and health professionals need to be aware of this when making assessments. Now that PTSD sufferers are eligible for financial compensation, increasing numbers of veterans are coming forward for diagnosis and treatment, and psychiatric services will need to develop better strategies for dealing with this problem.

A related issue is the nature and extent of elderly people's response to disastrous and traumatic experience in old age.[109] In an interesting

natural experiment, Phifer and Norris[110] were able to examine prospectively the response of elderly inhabitants of a poor rural region of the USA to two devastating floods. They found that personal loss of property was associated with increased levels of anxiety and depression, but that this response was limited, except in individuals exposed to extreme catastrophe. Persistent psychological disturbance was related not so much to personal loss as to the degree of damage suffered by the community as a whole. Any disturbance, persistent or not, was relatively mild, and few subjects would have qualified for a DSM-III-R diagnosis of PTSD. However, some might have met the criteria for the as yet little-researched ICD-10 diagnosis of 'acute stress reaction'. The psychological resilience of many people in the face of extreme trauma and loss reminds us that we have much to learn about vulnerability and protective factors in relation to neurotic and affective disorders.

Obsessive–compulsive disorder (OCD)

People with OCD suffer from obsessive thoughts and/or compulsive acts which are a significant source of distress, or interfere with social functioning. Modern nosologies are probably most appropriate in their categorization of OCD as a distinct disorder, although its current classification with the anxiety disorders may be inappropriate. Although a proportion of OCD patients also develop significant symptoms of depression and anxiety, it is a relatively persistent and stable diagnosis.[111] OCD shows an early and specific response to treatment with serotonergic drugs,[112] and the placebo response rate is much lower than that which occurs in depression and anxiety.[113,114] OCD appears to have more in common with neurodevelopmental disorders such as Gilles de la Tourette's syndrome, and Insel[115] has suggested that it is due to impairment of a specific neuronal circuit involving the orbitofrontal cortex, basal ganglia, substantia nigra and ventrolateral pallidum. This is in contrast to other anxiety disorders, which are thought to be due to disturbances in the frontal cortex–amygdala–septum–hippocampus system which mediates fear.[116]

The clinical features of OCD in elderly patients are similar to those seen in younger adults. It is very rare for OCD to appear for the first time in old age, although cases have been reported.[117] Most cases that present late are long-standing disorders that have never been identified or treated.[118] It is important therefore that all elderly cases receive thorough evaluation and the benefit of modern treatments as and when they present to psychogeriatric services.[119] In old age, the late appearance of apparently obsessional orderliness and preoccupation with routines may presage the onset of dementia, particularly if the frontal lobe is involved. Obsessional symptoms may also appear at any age following head injury or cerebral tumour; in such cases, apparently obsessional and stereotypic behaviour is not preceded by mounting anxiety or followed by a release of tension.

Somatoform disorders

The frank somatization of psychological distress usually has its onset early in life (by definition, DSM-IV somatization disorder begins before the age of 30 years) and once established it tends to have a chronic course. Somatizing individuals are skilled both at seeking medical treatment and at avoiding psychiatrists, and it is not uncommon for these individuals to present to psychiatric services for the first time in old age. They are usually referred with a very extensive history of complaints, specialist consultations and investigations, and the clinical picture is often complicated by the presence of true physical illness, depression and anxiety. Studies of clinical populations suggest that somatization disorder does not ameliorate substantially with age,[120,121] although as they get older these patients may transfer their concern to genuine organic symptoms. Such patients are rare, but they give rise to management problems quite out of proportion to their number.

Another form of preoccupation with physical illness more often encountered in elderly patients is hypochondriasis. In contrast to somatizing patients who have multiple complaints and who demand relief from their distress, the concern of hypochondriacal patients is typically restricted to a limited number of body systems or organs; as a rule, they are concerned with the possibility that they might be suffering from a serious physical illness, and their demand is for investigation rather than treatment. In the elderly, primary hypochondriasis is nearly always a chronic problem, and late onset hypochondriasis is usually secondary to depression or anxiety.

Hysterical dissociation

Hysterical symptoms in elderly patients are an important exception to the general rule that neurotic symptoms in the elderly have the same diagnostic significance as in younger adults. Apparently hysterical conversion reactions and dysmnesias occasionally appear in elderly patients in response to stress. However, as Bergmann[122] has said, 'it is best to assert dogmatically that primary hysterical illness does not begin in old age'; such symptoms are usually due either to underlying undiagnosed physical illness, or the release of dissociative tendencies in vulnerable personalities by organic cerebral pathology or functional psychiatric disorder.

Management

Despite the availability of many behavioural, cognitive and environmental strategies for the management of neurotic disorders at all ages, drugs are still the most common form of treatment offered to elderly sufferers. Old people are the heaviest consumers of psychotropic medication, particularly benzodiazepine tranquillizers and hypnotics,[123] and certain groups, such as those in long-term care, are particularly likely to receive these drugs.[124] Although drug treatment is easy and convenient in the short term, it can lead to considerable problems later on, which could be avoided if the benefits and advantages of alternative approaches were more widely appreciated.

Since most cases of neurotic disorder in the elderly are seen in primary care and general medical settings, this is where the focus of identification and treatment should be. Specialist psychogeriatric services have only a limited role in the management of these patients, particularly in the long term, but they are a valuable source of expertise and should aim to offer advice and education to primary care and general hospital staff in appropriate management strategies.

Psychological treatments

Cognitive–behaviour therapy (CBT) is of proven benefit in the treatment of conditions such as phobias and OCD in younger adults, and individual case-reports and small case-series of successful treatments in elderly patients with phobic disorders[125–127] show that this approach can also be successfully applied to this age group. CBT has also been used in elderly patients with depression, prolonged grief reactions, generalized anxiety and panic with encouraging results.[128–130] CBT involves both the cognitive and behavioural approaches and aims to conceptualize and modify the disturbances in thinking and behaviour that characterize neurotic disorders. Although theoretically distinct they are in practice rarely carried out in isolation, and procedures such as anxiety management training draw on both models.[131] CBT may be carried out both individually and in groups. The advantages of groups are that they are more cost-effective, and they also harness useful peer support which often persists after the formal treatment has finished.[132] However, it can be difficult and time-consuming to assemble groups in which the members are sufficiently similar to ensure they work well together and do not exclude or scapegoat particular individuals. While the principles of applying CBT to elderly patients are the same as for younger adults, the goals and techniques may need to be adapted in some cases,[131] for example if there is significant physical disability. Certain behavioural strategies such as flooding which involve high levels of arousal may be less useful in the elderly, because the associated impairment in cognitive performance inhibits learning. There is no evidence that elderly patients are less likely to be able to use CBT than younger patients.

Some knowledge of psychodynamics is of great value when assessing elderly patients, particularly if their disorders involve difficulties in negotiating the developmental issues of late life, or the inappropriate and maladaptive use of defence mechanisms.[133] Formal psychodynamic treatments and techniques, particularly in group settings, are also useful in the treatment of neurotic disorders in elderly patients.

Drug treatments

Before starting an elderly patient on any psychotropic medication there are a number of important factors to consider. First, will it have an adverse effect on the patient's physical condition? Secondly, will the medication interact with any other drugs (including alcohol) that the patient is taking? Thirdly, what are the pharmacokinetics and pharmacodynamics of the patient? Last, but not least, is the patient likely to take the

drugs as prescribed? When making this judgement, the risk of suicide must also be taken into consideration.

Benzodiazepines There are surprisingly few formal controlled trials of benzodiazepine treatment in elderly patients, and as Salzman[134] has pointed out, those that have been published are difficult to interpret because of the very diverse nature of the subjects included and the methods used to investigate them. Current views on benzodiazepine use in this age group are based for the most part on clinical experience, extrapolation from studies of younger adults, and studies of pharmacokinetics in the elderly. Important problems associated with the prolonged use of benzodiazepines include dependence, memory impairment, poor motor coordination, depression of respiratory drive and paradoxical excitement.[135–137] Elderly people are particularly sensitive to these adverse effects, and the accumulation of drugs with long elimination half-lives also leads to drowsiness, delirium, incontinence, falls and fractures. In one recent study of elderly hospitalized patients, benzodiazepines were found to account for 29% of new episodes of acute confusion.[138] As a rule, therefore, benzodiazepines in the elderly should be restricted for the most part to the management of transient, short-term anxiety symptoms, and drugs with short half-lives and no active metabolites, such as oxazepam, are to be preferred. Maintenance treatment may be appropriate in a few elderly cases, but long-term use of benzodiazepines should be avoided and established users weaned off their medication whenever possible.[123] Despite the problems encountered when treating elderly patients with benzodiazepines, their use is still widespread,[139] although shorter-acting compounds are now more commonly prescribed.

Antidepressants If depression is a prominent feature of the neurotic disorder, then treatment with antidepressant medication should be considered. Generalized anxiety and panic also respond to antidepressant drugs. Both tricyclics and the selective serotonin reuptake inhibitors (SSRIs) are effective, but the latter are preferable because they can be used safely in severely physically ill and suicidal patients, although activating SSRIs may actually worsen anxiety, at least in the short term (Table 3).[140] Drugs with serotonin-reuptake inhibiting activity also appear to have a specific effect in OCD, and are effective in the elderly,[119,141] Monoamine oxidase inhibitors (MAOIs) are relatively well tolerated by the elderly, although their use has declined in recent years. A specific MAO-B inhibitor, moclobemide, has recently been introduced which has much less peripheral activity than the older MAOIs, and therefore there is less need for dietary restrictions. Whether or not it has any particular role in the treatment of neurotic disorders is not known. While some neurotic symptoms may remit along with the depression following antidepressant medication, others such as established phobic avoidance will usually require a separate psychological intervention.[142]

Neuroleptics The risk of disabling extrapyramidal side-effects means that neuroleptic drugs have only a limited role in the long-term management of neurotic symptoms in most elderly patients. However, short courses of these drugs are of benefit when fear and agitation are secondary to psychotic experiences, as in delirium, and in such cases haloperidol and zuclopenthixol are the drugs of choice.

Other drugs Low doses of beta-blocking drugs such as propranolol may be useful in elderly patients with prominent sympathetic somatic symptoms, although there is no published evidence of their effectiveness in this age group. They should not be used in patients with asthma, chronic obstructive airways disease, cardiac conduction defects and heart failure. These restrictions, together with side-effects such as nightmares and insomnia, limit their usefulness in the elderly.

Antihistamine drugs such as hydroxyzine have long been used as anxiolytics in the elderly. Their effect is probably due primarily to their sedative action. They are relatively safe, although hypotension can be a problem. They have a role in patients where respiratory depressant drugs are contraindicated.

Buspirone is a relatively new azapirone anxiolytic that differs both chemically and pharmacologically from the benzodiazepines. Its pharmacokinetics, safety and efficacy in the elderly are similar to those in younger adults,[143] and it appears to be well tolerated by this age group. Its short-term use is not associated with rebound, dependence or abuse.[144] There is no cross-tolerance with benzodiazepines, so

buspirone should not be used to cover benzodiazepine withdrawal. Unlike other anxiolytics, it takes about two weeks to become effective, so it has a limited role in the management of acute anxiety states.

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